

(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 788 974 A2

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
13.08.1997 Bulletin 1997/33

(51) Int. Cl.⁶: B65D 30/06

(21) Application number: 97101632.4

(22) Date of filing: 03.02.1997

(84) Designated Contracting States:
BE DE ES FR NL

(72) Inventor: Mercadini, Andrea
47023 Cesena, Forli (IT)

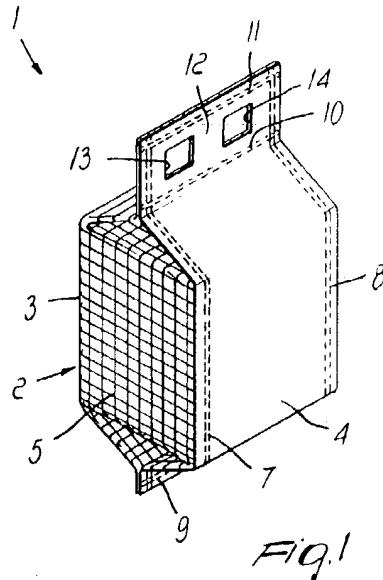
(30) Priority: 07.02.1996 IT BO960017 U

(74) Representative: Modiano, Guido, Dr.-Ing. et al
Modiano & Associati S.r.l.
Via Meravigli, 16
20123 Milano (IT)

(71) Applicant: NETPACK S.r.l.
47023 Cesena, Forli (IT)

(54) **Bag, obtained from a sheet and a plastic net, for containing loose products, particularly fruit and vegetable products**

(57) A bag for containing loose products, particularly fruit and vegetable products, comprising a pouch (2) composed of a net (3), which forms one side of the pouch (2), and of a plastic sheet (4), which forms another side of the pouch (2), the net (3) and the sheet (4) being joined to each other so as to close the pouch (2) to form the bottom at a lower end thereof and a handle for carrying the pouch at the upper end thereof.



EP 0 788 974 A2

Description

The present invention relates to a bag for containing loose products, particularly fruit and vegetable products.

Conventional bags obtained from a net of cotton or synthetic thread, for containing loose products, particularly fruit and vegetable products, such as citrus fruits, are already widely commercially available. It has also been proposed to replace the thread net with an extruded net of plastics having a polygonal mesh. In particular, in this last type of bag the net is folded over and joined by thermal bonding lines, so as to form a container pouch having, on the opening side, a grip element that is constituted by a thermally-bonded band of plastics.

Conventional bags have some substantial drawbacks. First of all, the pouch assumes a rather flat shape that reduces its containment capacity.

Secondly, the plastic net has strength limits that do not allow to load the pouch adequately.

A principal aim of the present invention is therefore to provide a bag that does not have the above-mentioned shortcomings, i.e., having greater load resistance and a greater capacity than conventional bags.

Within the scope of this aim, an object of the present invention is to provide a bag that can be easily obtained starting from commonly commercially available elements and materials and is furthermore highly competitive from a merely economical point of view.

Another object of the present invention is to provide a bag which, while weighing as much as other packages, is less bulky externally.

This aim and these objects are achieved by a bag for containing loose products, particularly fruit and vegetable products, characterized in that it comprises a pouch composed of a net, which forms one side of said pouch, and of a plastic sheet, which forms another side of said pouch, said net and said sheet being joined one another so as to close said pouch to form the bottom at a lower end thereof and a handle for carrying said pouch at the upper end thereof.

Further characteristics and advantages of the invention will become apparent from the following detailed description of some preferred embodiments of a bag, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a perspective view of a bag according to a first embodiment;

figure 2 is a perspective view of the bag of figure 1, taken from the opposite side;

figure 3 is a perspective view of a bag according to a second embodiment of the invention;

figure 4 is a partially sectional perspective view of a bag according to a third embodiment; and

figure 5 is a partially sectional perspective view of a bag according to a fourth embodiment.

With reference to figures 1 and 2, the bag, according to a first embodiment, is generally designated by the reference numeral 1 and comprises a pouch 2 formed by joining a net made of plastics, for example but not necessarily of the so-called extruded type, with a sheet of plastic material, said net and said sheet being designated by the reference numerals 3 and 4 respectively.

The net 3 and the sheet 4 are joined by means of longitudinal thermal bonding lines, so as to form two opposite sides of the pouch 2, which are joined to each other by two respective lateral accordion-like portions 5 and 6.

Preferably, the accordion-like portions 5 and 6 are constituted by the net 3, although they can be produced with the sheet 4.

Advantageously, the longitudinal thermal bonding lines 7 and 8 between the net 3 and the sheet 4 run along the folding edges formed by the accordion-like portions 5 and 6 with respect to the sheet 4.

The net 3 and the sheet 4 are thermally bonded not only longitudinally but also transversely along thermal bonding lines 9, 10, and 11. The lower thermal bonding line 9 closes the pouch, forming the bottom, whereas the upper thermal bonding lines 10 and 11 are meant to close the opening for inserting the products in the pouch 2 and form a band 12 in which at least one opening is provided. In figure 1 two openings 13 and 14 are provided. The band 12 and the openings 13 and 14 constitute the handle of the bag.

By virtue of the particular configuration of the accordion-like portions 5 and 6, the pouch 2, after the insertion of the products and the closure of the product insertion mouth, assumes a prism-like shape that provides high containment capacity.

It is evident that the described invention perfectly achieves the intended aim and objects. The coupling of the sheet 4 to the net 3 is particularly important and ensures:

a) greater strength of the thermal bonds 7-11, since the joining with the sheet 4 produces a larger surface for coupling to the net 3;

b) greater load resistance of the pouch, by virtue of the greater load-bearing strength of the sheet 4, which has a supporting function;

c) the possibility of forming a strong and more comfortable carrying handle;

d) the possibility of using the sheet 4 to externally apply lettering and indications concerning the nature and features of the product contained in the pouch;

e) a bag in which the contained products remain perfectly visible and ventilated and are therefore subject to less deterioration.

The described invention is susceptible of numerous modifications and variations, all of which are within the scope of the same inventive concept.

Figure 3 is a view of a second embodiment of the

present invention in which the sheet of plastic material also affects part of the side of the net 3, occupying a central band 15. In this case, the pouch 2 is even stronger than the pouch according to the first embodiment, whereas the central band 15 offers a larger surface to be used to advertise the product.

Figure 4 is a view of a third embodiment of the present invention, in which the net 3 and the sheet 4 are joined directly to each other without interposing accordion-like portions. The result is a sort of envelope that has a proportionally lower capacity than previous bags but is cheaper and capable of meeting more modest requirements.

Finally, figure 5 illustrates a bag of the type shown in figure 4, which however is characterized by the presence of an accordion-like portion 16 on the bottom. Said accordion-like portion 16, once open, allows to widen the resting base of the bag, which accordingly can remain in an upright position.

In the practical embodiment of the invention, the materials employed, as well as the shapes and the dimensions, may vary as desired. It is possible to use any adapted plastic material, for example polypropylene or polyethylene, for the net and for the sheet. Furthermore, the net can be coupled to the sheet by stitching instead of by thermal bonding.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

5. A bag according to claim 2, characterized in that said lateral accordion-like portions and/or said bottom accordion-like portion are constituted by said sheet.
6. A bag according to claim 1, characterized in that said net and said sheet are joined by thermal bonding lines or stitching lines.
10. 7. A bag according to claim 6, characterized in that it comprises longitudinal thermal bonding lines that run between said net and said sheet along the folding edges formed by said accordion-like portions with respect to said sheet.
15. 8. A bag according to claim 6, characterized in that said net and said sheet are welded along transverse thermal bonding lines, wherein the lower thermal bonding line closes said pouch, forming the bottom, whilst the upper thermal bonding lines are meant to close the opening for inserting the products in the pouch and form a band in which at least one opening is formed, said band and said at least one opening constituting the handle of the bag.
20. 9. A bag according to claim 1, characterized in that it comprises a sheet of plastic material that also partially affects the side of the net at a central band.
25. 10. A bag according to claim 8, characterized in that said net and said sheet are directly joined together.

1. A bag for containing loose products, particularly fruit and vegetable products, characterized in that it comprises a pouch composed of a net, which forms one side of said pouch, and of a plastic sheet, which forms another side of said pouch, said net and said sheet being joined to each other so as to close said pouch to form the bottom at a lower end thereof and a handle for carrying said pouch at the upper end thereof.

35

40

45

2. A bag according to claim 1, characterized in that said net and said sheet are joined one another so as to form lateral accordion-like portions.

50

3. A bag according to claim 1, characterized in that said net and said sheet are joined along the bottom so as to form an accordion-like portion.

55

4. A bag according to claim 2, characterized in that said lateral accordion-like portions and/or said bottom accordion-like portion are constituted by said net.

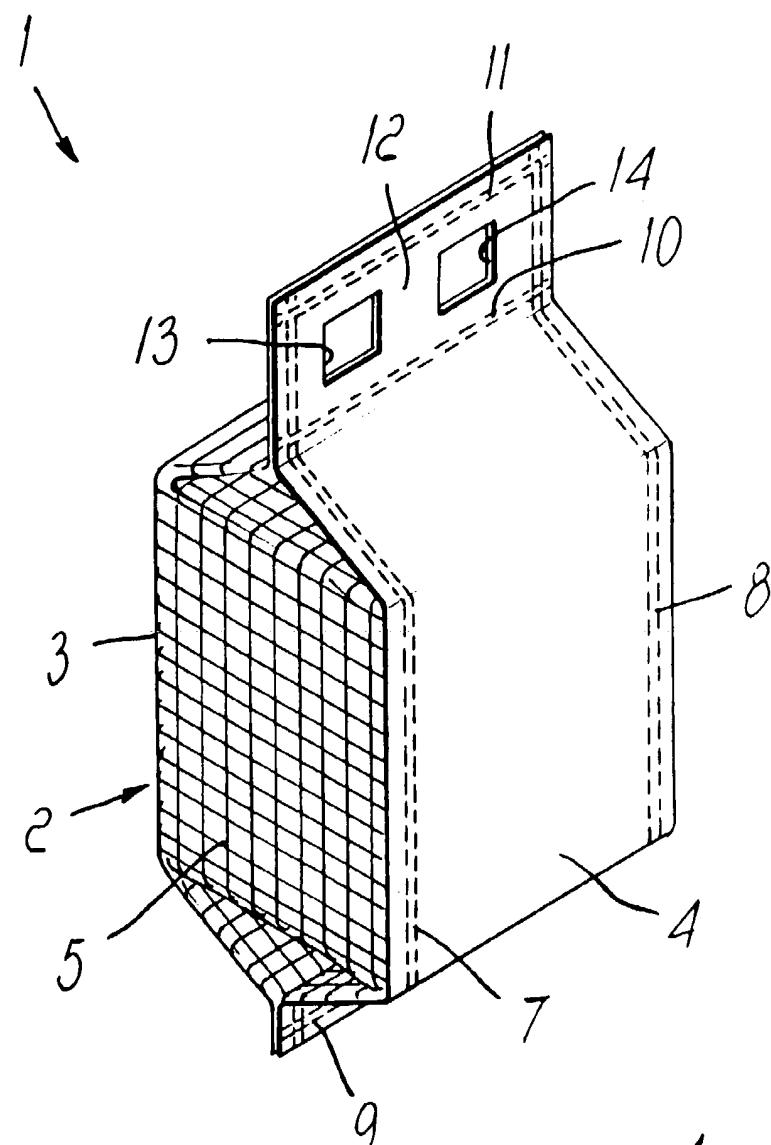


Fig. 1

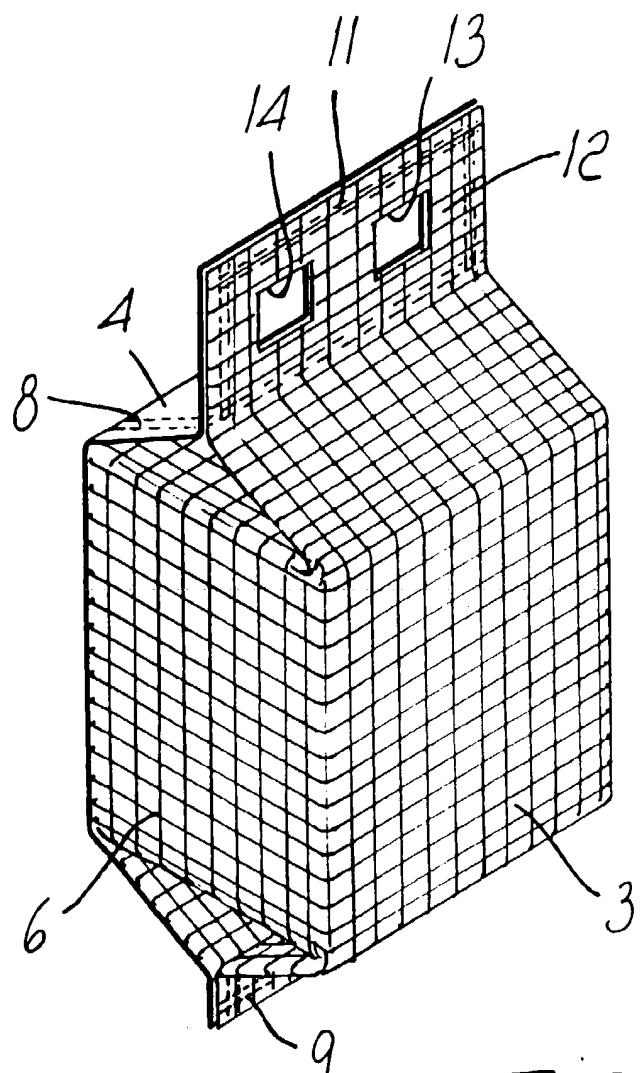


FIG. 2

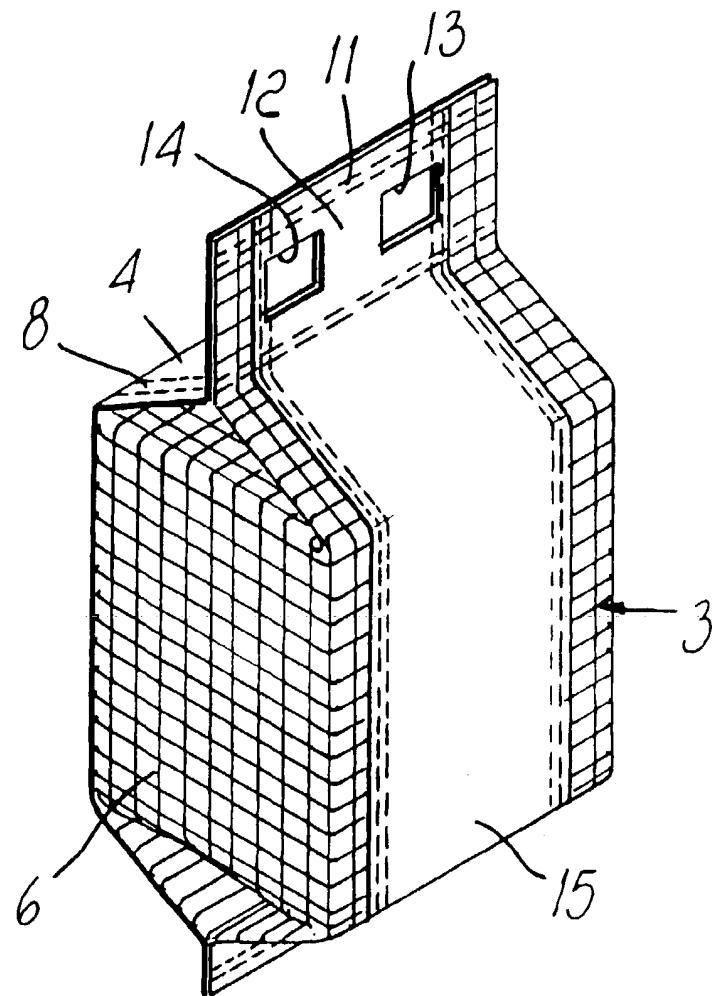
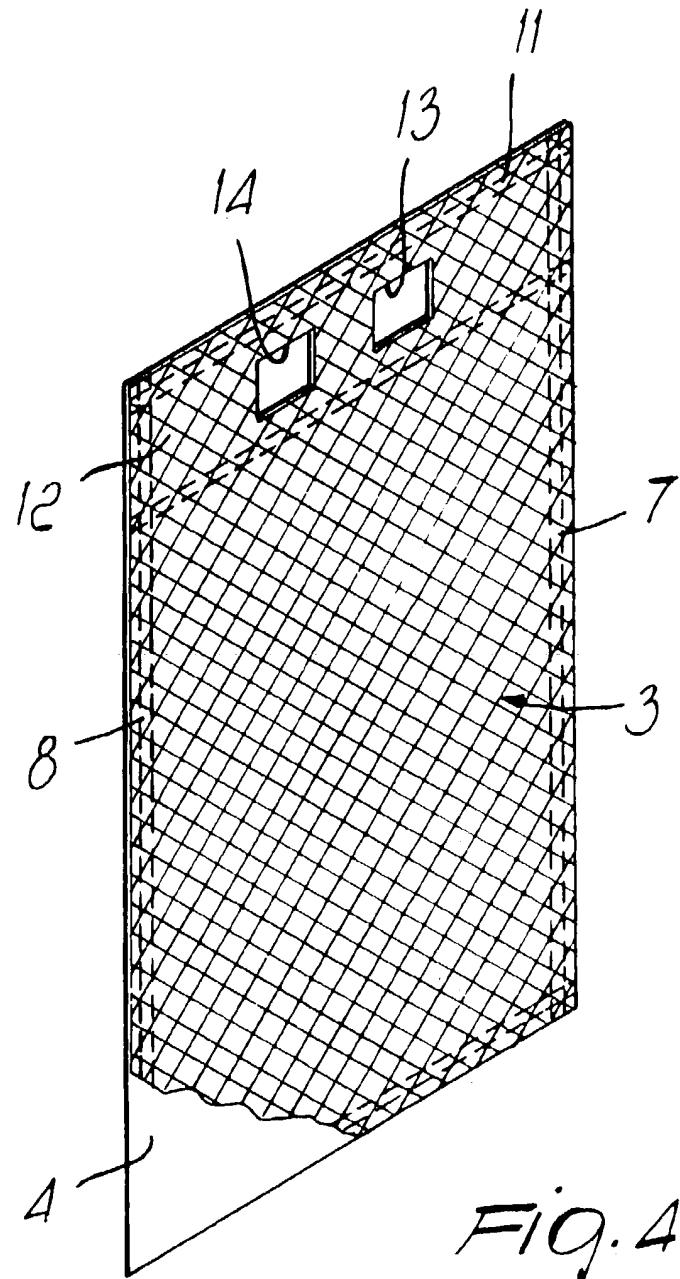


Fig. 3



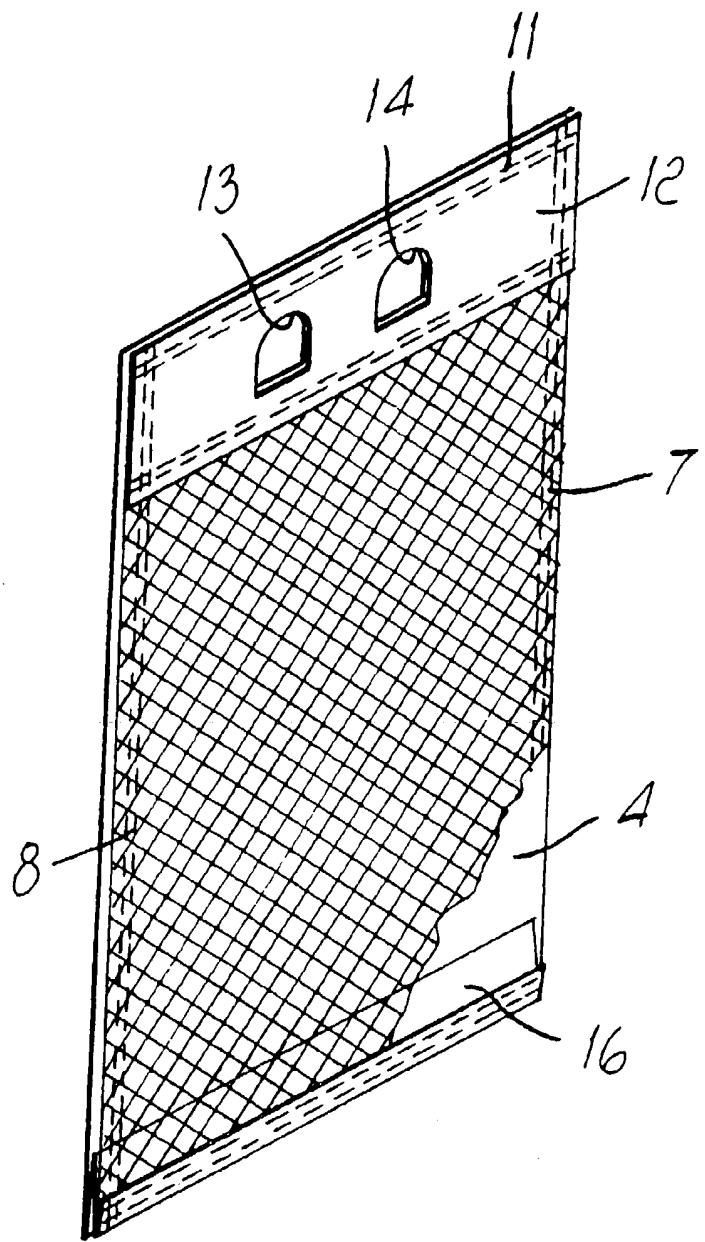


Fig. 5